FIG. 1

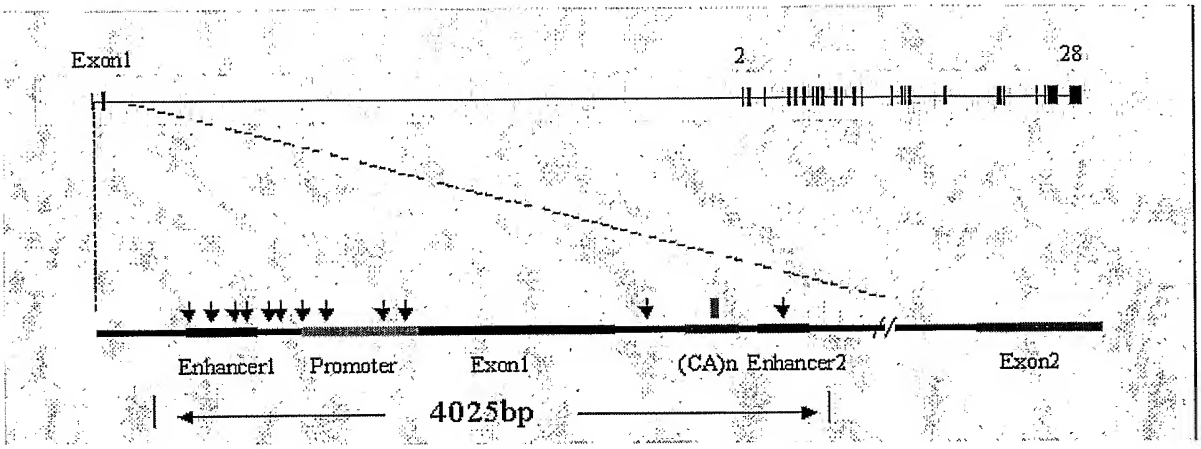

Exon1
2
28
Enhancer1
Promoter
Exon1
(CA)n Enhancer2
Exon2
4025bp

FIG. 2

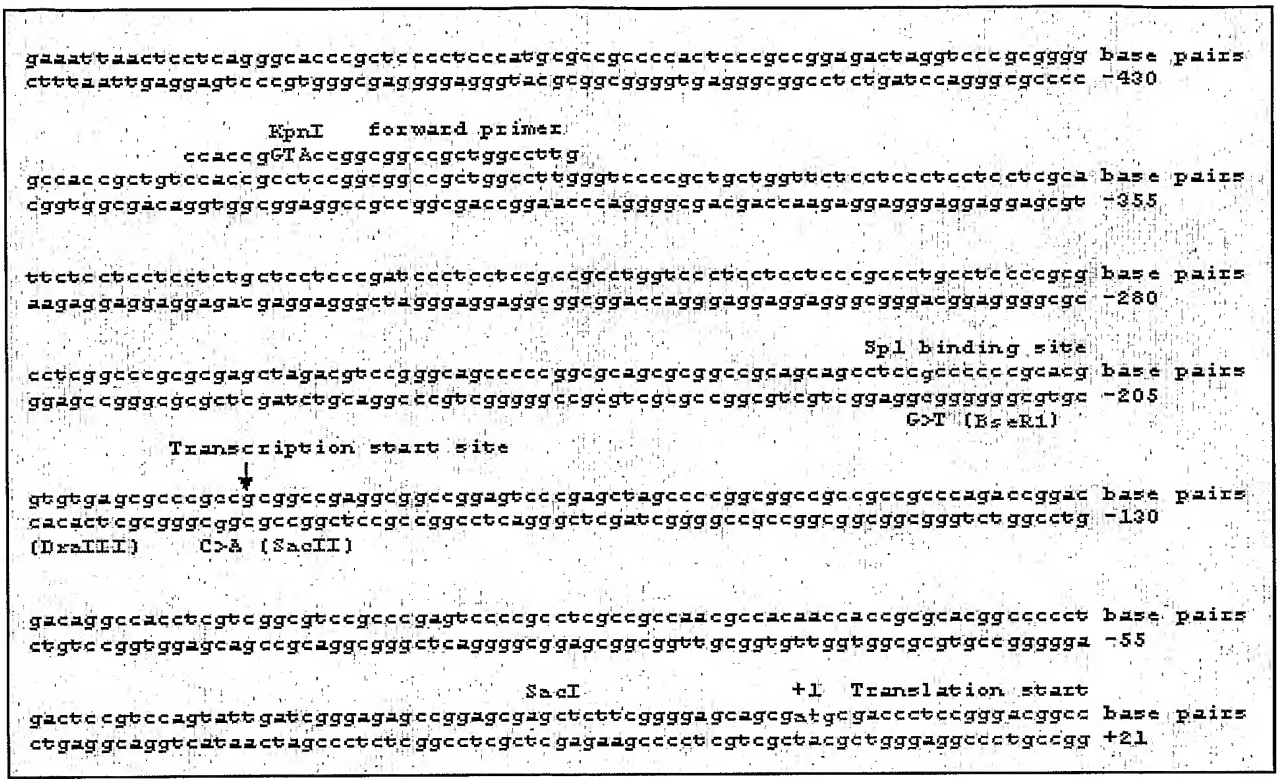

gaaattaactcctcagggcacccgctccctcccatgcgccgccccactcccgccggagactaggtcccgcgggg base pairs
ctttaattgaggagtcccgtgggcgagggggagggtacgcggcggggtgagggcggcctctgatccagggcgcccc -430
KpnI forward primer
ccaccgGTAccggcggccgctggccttg
gccaccgctgtccacccgcctccggcggccgctggccttgggtccccgctgctggttctcctccctcctcctcgca base pairs
cggtggcgacaggtggcggaggccgccggcgaccggaacccaggggcgacgaccaagaggagggaggaggagcgt -355
ttctcctcctcctctgctcctcccgatccctcctccgccgcctggtccctcctcctcccgccctgcctcccgcg base pairs
aagaggaggaggagacgaggagggctagggaggaggcggcggaccagggaggaggagggcgggacggaggggcgc -280
Sp1 binding site
cctcggcccgcgcgagctagacgtccgggcagcccccggcgcagcgcggccgcagcagcctccgcccccgcacg base pairs
ggagccgggcgcgctcgatctgcaggcccgtcgggggccgcgtcgcgccggcgtcgtcggaggcgggggcgtgc -205
G>T (BseR1)
Transcription start site
gtgtgagcgcccgccgcggccgaggcggccggagtcccgagctagccccggcggccgccgccgcccagaccggac base pairs
cacactcgcgggcggcgccggctccgccggcctcagggctcgatcggggccgccggcggcggcgggtctggcctg -130
(DraIII) C>A (SacII)
gacaggccacctcgtcggcgtccgcccgagtccccgcctcgccgccaacgccacaaccaccgcgcacggccccct base pairs
ctgtccggtggagcagccgcaggcgggctcaggggcggagcggcggttgcggtgttggtggcgcgtgccgggggga -55
SacI +1 Translation start
gactccgtccagtattgatcgggagagccggagcgagctcttcgggggagcagcgatgcgacccctccgggacggcc base pairs
ctgaggcaggtcataactagccctctccggcctcgctcgagaagccccctcgtcgctacgctgggaggccctgccgg +21

FIG. 3

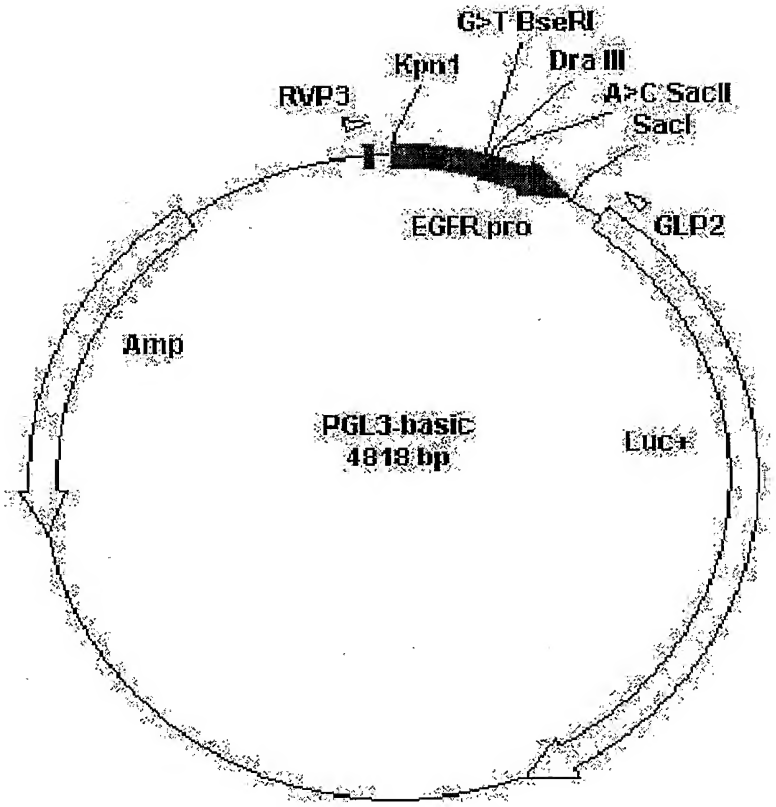

G>T BseRI
Kpn1
Dra III
A>G SacII
SacI
RVP3
EGFR pro
GLP2
Amp
PGL3-basic
4818 bp
Luc+

FIG. 4

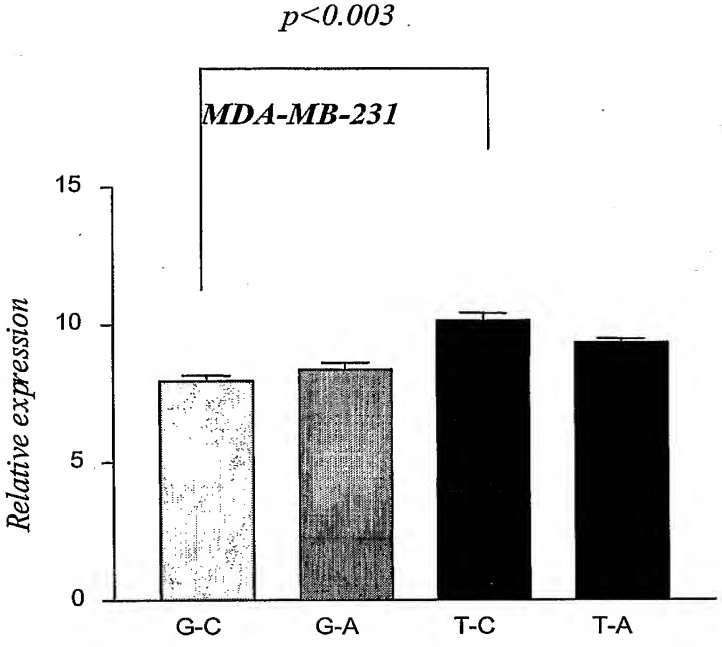


FIG. 5

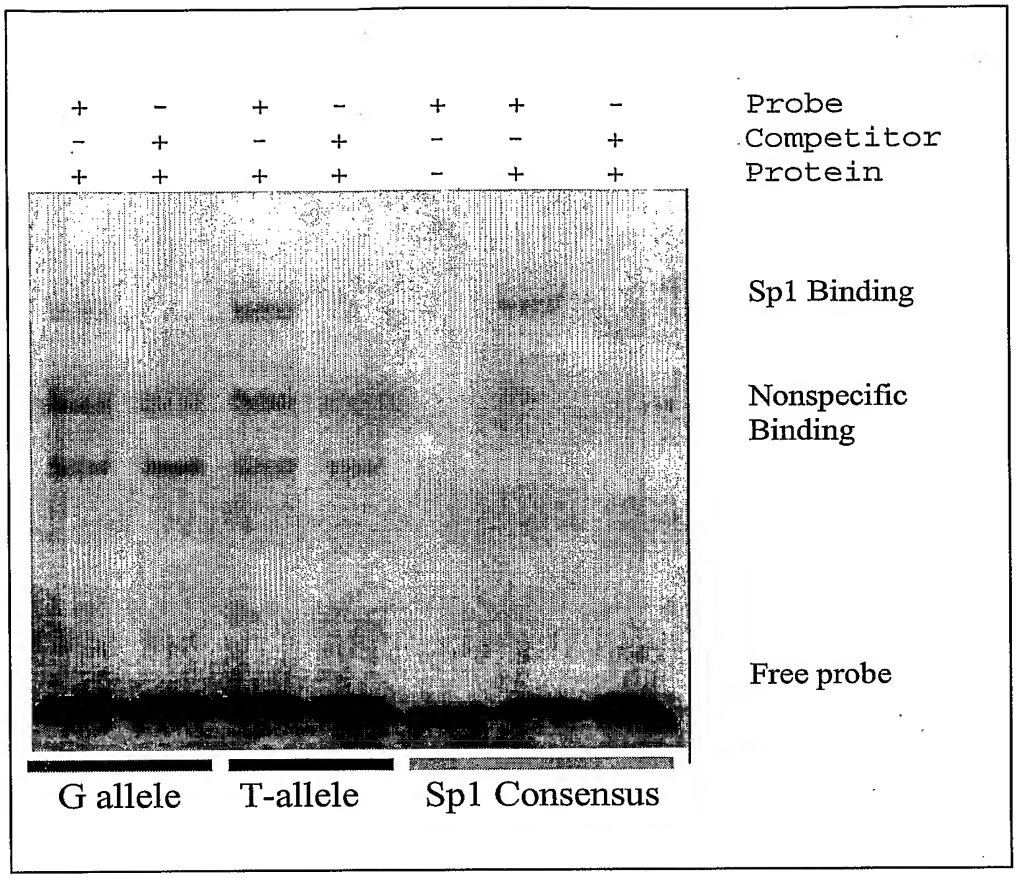
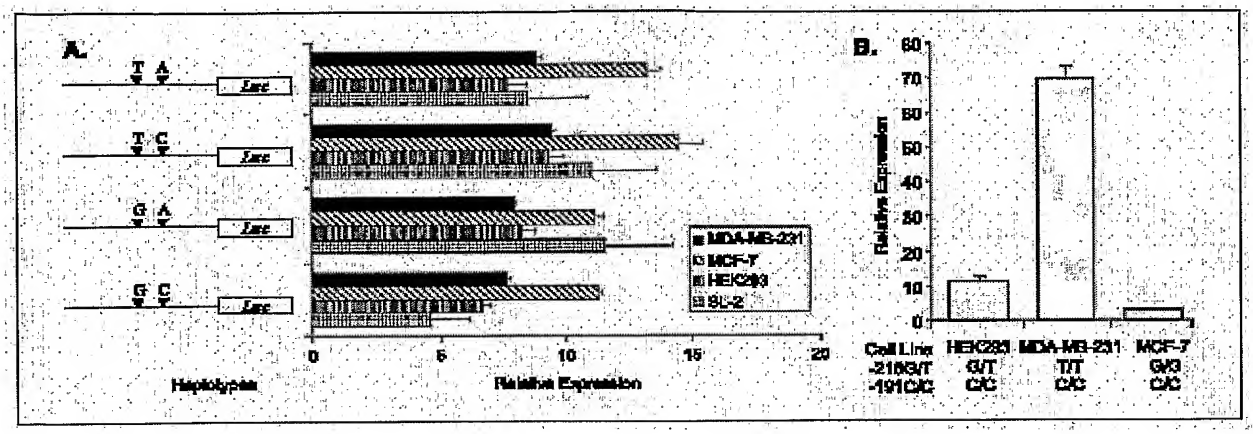

+ - + - + + -
- + - + - - +
+ + + + - + +
Probe
Competitor
Protein
Sp1 Binding
Nonspecific Binding
Free probe
G allele
T-allele
Sp1 Consensus

FIG. 6A - 6B


A.
T A
T C
G A
G C
Luc
MDA-MB-231
MCF-7
HEK293
SK-2
0
5
10
15
20
Haplotypes
Relative Expression
B.
Relative Expression
Cell Line
-2189G/T
-1910C/C
HEK293
G/T
C/C
MDA-MB-231
T/T
C/C
MCF-7
G/G
C/C